

# **Chapter 173-481 WAC**

## **AMBIENT AIR QUALITY AND ENVIRONMENTAL STANDARDS FOR FLUORIDES**

(Formerly chapter 18-48 WAC)

### **WAC**

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**WAC 173-481-010 Purpose.** This chapter promulgated under RCW 70.94.305 and 70.94.331 establishes fluoride standards for the protection of livestock and vegetation. Standards address the fluoride content of forage and gaseous fluorides in the ambient air.

[Statutory Authority: Chapter 70.94 RCW. 87-19-073 (Order 87-21), § 173-481-010, filed 9/16/87.]

**WAC 173-481-020 Applicability.** The provisions of this chapter apply to all areas of the state of Washington.

[Statutory Authority: Chapter 70.94 RCW. 87-19-073 (Order 87-21), § 173-481-020, filed 9/16/87.]

**WAC 173-481-030 Definitions.** Unless a different meaning is clearly required by context, words and phrases used in this chapter shall have the following meanings; general terms common with other chapters of Title 173 WAC as defined in chapter 173-403 WAC, and terms specific to standards for fluorides as defined below:

(1) "Forage" means grasses, pasture and other vegetation that is consumed or is intended to be consumed by livestock.

(2) "Cured forage" means hay, straw, ensilage that is consumed or is intended to be consumed by livestock.

[Statutory Authority: Chapter 70.94 RCW. 87-19-073 (Order 87-21), § 173-481-030, filed 9/16/87.]

**WAC 173-481-100 Forage standards.** (1) All sampling to determine compliance with these standards shall be conducted in locations and during time periods consistent with protecting livestock and vegetation.

(2) The fluoride content of forage calculated by dry weight shall not exceed:

(a) Forty parts per million fluoride ion (40 ppm F<sup>-</sup>) average for any twelve consecutive months.

(b) Sixty parts per million fluoride ion (60 ppm F<sup>-</sup>) each month for more than two consecutive months.

(c) Eighty parts per million fluoride ion (80 ppm F<sup>-</sup>) more than once in any two consecutive months.

(3) In areas where cattle are not grazed continually, but are fed cured forage part of the year, the fluoride content of the cured forage shall be used as the forage fluoride content for as many months as it is fed to establish the yearly average.

(4) Cured forage grown for sale as livestock feed shall not exceed forty parts per million fluoride ion (40 ppm F<sup>-</sup>) by dry weight after curing or preparing for sale.

[Statutory Authority: Chapter 70.94 RCW. 87-19-073 (Order 87-21), § 173-481-100, filed 9/16/87.]

**WAC 173-481-110 Ambient standards.** (1) All sampling to determine compliance with these standards shall be conducted in locations and during time periods consistent with protecting livestock and vegetation.

(2) Gaseous fluorides in the ambient air calculated as HF at standard conditions shall not exceed:

(a) Three and seven-tenths micrograms per cubic meter (3.7 µg/m<sup>3</sup>) average for any twelve consecutive hours;

- (b) Two and nine-tenths micrograms per cubic meter ( $2.9 \mu\text{g}/\text{m}^3$ ) average for any twenty-four consecutive hours;
- (c) One and seven-tenths micrograms per cubic meter ( $1.7 \mu\text{g}/\text{m}^3$ ) average for any seven consecutive days;
- (d) Eighty-four one-hundredths micrograms per cubic meter ( $0.84 \mu\text{g}/\text{m}^3$ ) average for any thirty consecutive days;
- (e) Five-tenths micrograms per cubic meter ( $0.5 \mu\text{g}/\text{m}^3$ ) average for the period March 1 through October 31 of any year.

[Statutory Authority: Chapter 70.94 RCW. 87-19-073 (Order 87-21), § 173-481-110, filed 9/16/87.]

**WAC 173-481-150 Compliance with standards.** When requested by the department, persons emitting fluorides to the ambient air shall demonstrate their compliance with WAC 173-481-100 and 173-481-110 by conducting a monitoring program approved in writing by the department. All monitoring data shall be submitted to the department.

[Statutory Authority: Chapter 70.94 RCW. 87-19-073 (Order 87-21), § 173-481-150, filed 9/16/87.]

**WAC 173-481-160 Sampling and analysis.** Sampling and analysis shall be in accordance with techniques approved by and on file with the department. Other sampling and methods of analysis which are equivalent in accuracy, sensitivity, reproducibility and applicability under similar conditions may be used after approval by the department.

[Statutory Authority: Chapter 70.94 RCW. 87-19-073 (Order 87-21), § 173-481-160, filed 9/16/87.]